

**PRODUCTION OF ALPHA-OLEFIN LOW POLYMER**

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**Abstract of JP9194400**

**PROBLEM TO BE SOLVED:** To obtain a low polymer of an  $\alpha$ -olefin such as 1-hexene in high catalytic activity, in high yield, in high selectivity and simply by producing a low polymer of an  $\alpha$ -olefin such as ethylene by using specific chromium-based catalyst.

**SOLUTION:** A low polymer of (B) an  $\alpha$ -olefin is produced by using a chromium-based catalyst comprising (A) a chromium compound (A1), a nitrogen-containing compound (A2) such as an amine, an amide or an imide, an alkyl aluminum compound (A3) and a halogen-containing compound (A4) in the molar ratio of the components A1 :A2 :A3 :A4 of 1:(0.1-10):(1-100):(0.1-20) and prepared by a process for bringing the component A1 into contact with the component A3 in a 10-50mol% solution of an  $\alpha$ -olefin. The component A4 preferably contains an element of the group IIIA, IIIB, IVA, IVB, VA or VB of the periodic table. The component A1 is brought into contact with the component A3 in an atmosphere under 10-50kg/cm<sup>2</sup> ethylene partial pressure.

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